DENR USE ONLY: Paper Repo	ort □Electronic Data - Email CD	(data loaded: Yes / No )	Doc/Even	t #:
NC DENR Division of Waste Managem	ent - Solid Waste	•	Enviro	nmental Monitoring Reporting Form
Notice: This form and any information	on attached to it are "Public Records" as y person upon request (NC General Statu		ite 132-1. As such, thes	
Instructions:  • Prepare one form for each ind	ividually monitored unit			•
<ul> <li>Please type or print legibly.</li> </ul>	-	-111111-NO	0D	dends. The section was a
include a preliminary analysis of the • Attach a notification table of any	alues that attain or exceed NC 2L grou e cause and significance of each value groundwater or surface water values t methane gas values that attain or exc	e. (e.g. naturally occurring, hat equal or exceed the re	off-site source, pre-ex eporting limits.	cisting condition, etc.).
(NCAC 13B 1629 (4)(a)(i). • In accordance with NC General	Statutes Chapter 89C and 89E and NC		•	
<ul> <li>bottom of this page, when applicab</li> <li>Send the original signed and sea</li> <li>1646 Mail Service Center, Raleigh,</li> </ul>	aled form, any tables, and Electronic D	ata Deliverable to: Compli	ance Unit, NCDENR-D	DWM, Solid Waste Section,
Solid Waste Monitoring Da	ata Submittal Information	Traction of the Salar		
	aboratory, consultant, facility owne	r):		RECEIL
SCS Engineers, PC				(6)
1000 P.O. 2 P. D.	formatting. Include data preparer's	War a second or the second	er and E-mail addres	s: 5 25 2011 8
Name: Brandon King		one: 804.378.7440		13
E-mail: bking@scsengineers.con	1		e	ALE 3E
Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
	0004 Danania Baad	r .	.1600	
North Wake Landfill	9004 Deponie Road Raleigh, NC 27615	92-09		September 26, 2011
Environmental Status: (Check al Initial/Background Monitorin	g 🔀 Detection Monitoring	Assessment N		Corrective Action
Groundwater monitoring da Groundwater monitoring da Leachate monitoring data	ta from monitoring wells ta from private water supply wells	<ul><li>Methane gas mon</li><li>Corrective action</li></ul>		
Surface water monitoring da	ata	Other(specify)		
Yes, a notification of values monitoring points, dates, an preliminary analysis of the company of the company and the company and the company are the company and the company are the company	ace water standards were exceeded. exceeding a groundwater or surface of alytical values, NC 2L groundwater states and significance of any concentre exceeding an explosive methane gas ne gas limits.	andard, NC 2B surface wat ation.	ter standard or NC So	lid Waste GWPS and
Certification				
Furthermore, I have attached collevels, and a preliminary analysis	e information reported and stateme mplete notification of any sampling s of the cause and significance of c ng any false statement, representati	values meeting or exceoncentrations exceeding	eeding groundwater g groundwater stand	standards or explosive gas lards. I am aware that there
Robert E Dick / SCS Engineers, PC		804.378		,
Facility Representative Name (Print)	Title		de) Telephone Number	sional Geologist/Engineer Seal
flobert 2.	Duh	10-6-11 here		sional deologistichigineer deal
Signature		Date	in the state of th	TH CAROLANA SESSION SEAL
Revised 01/2007			No Committee of Police	022790 E

## NC Division of Waste Management - Solid Waste Section

certification including the possibility of a fine and imprisonment.

## **Landfill Gas Monitoring Data Form**

**Notice:** This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Facility Name	e: North V	Vake Land	fill			Permit	Number:	92-09		
Date of Samp	,			C Landfill	Rule (.0500	or .1600):	.1600			
Name and Po				ndon King						
Type and Seri	ial Number o	of Gas Met	ter: <u>GEM</u>	-2000 / GN	M08176	Ca	libration	Date of Ga	as Meter:	9/13/11
Date and Tim	e of Field Ca	alibration:	9/26/11		15:2	0				
Type of Field	Calibration	Gas (15/1:	5 or 35/50):	35/50	Expirati	on Date of	Field Ca	libration (	Gas Canister:	5/2013
Pump Rate of	Gas Meter:	500 mL								
Ambient Air	Temperature	: 80 F	Baron	netric Pres	sure: 29.	93	General	Weather C	Conditions:	sunny
Instructions: buildings). A by volume. A LEL/20	drawing sho	wing the l	ocation of te	st must be	attached. Re	eport meth	ane readii	ngs in both	n % LEL and	s (e.g., inside d % methane ne = %
Location or LFG Well ID	Sample Tube Purge	Time	Time Pumped (s)	Initial %LEL	Stabilized %LEL	%CH4 by Volume	%O2	%CO2	Notes	
All Wells	375 mL	Time	45	, dele	, 0222	, , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7000	see Exhibi	t 1
										· · · · · · · · · · · · · · · · · · ·
									<u></u>	
If your facility same informa				s than ther	re is room or	this form,	please at	tach addit	ional sheets	listing the
Certification  To the best o	f my knowle									

Project Scientist

804 378-7440 Fax 804 378-7433 www.scsengineers.com

## SCS ENGINEERS

October 3, 2011 File No. 02199312.02-2

Ms. Jackie Drummond **NCDENR** Division of Waste Management Solid Waste Section 1646 Mail Service Center Raleigh, North Carolina 27699-1646

Subject:

Notification of Methane Exceedances at Landfill Gas Monitoring Probes

North Wake County Landfill – Raleigh, North Carolina

On behalf of Wake County (the County), SCS Engineers, PC (SCS) is submitting this letter Dear Ms. Drummond: to formally notify NCDENR of a methane exceedance detected at perimeter landfill gas (LFG) monitoring probe M-26 at the North Wake County Landfill (Permit No. 92-09, the Landfill). In accordance with 15A NCAC 13B Section .1626(4)(c), the County must:

- Immediately take all necessary steps to ensure protection of human health and notify NCDENR; and
- ii. Within seven days of a detected exceedance, place in the operating record the methane gas levels recorded, and a description of the steps taken to protect human

During the Third Quarter 2011 routine monitoring event performed on September 26, 2011, one perimeter LFG monitoring probe at the Landfill, probe M-26, exhibited methane concentrations greater than the regulatory compliance threshold of 5.0 percent, which is equivalent to the lower explosive limit (LEL) for methane. LFG probe monitoring results for this event are attached in Exhibit 1. Probe M-26 is located on the southeast side of the closed, unlined cell. SCS notified NCDENR of these exceedances via electronic mail on October 3, 2011.

Upon detection, SCS immediately notified the County and the LFG control system operator, Wake Gas Producers (WGP) of the exceedance at perimeter monitoring probe M-26. WGP is currently implementing operational adjustments to the LFG control system in this area at this time and is continuing to monitor the adjacent LFG extraction components and probe M-26. SCS would also note no detectable methane concentration was recorded in any monitored structure during this most recent event.

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Mrs. Jackie Drummond October 3, 2011 Page 2

As required by 15A NCAC 13B Section .1626(4)(c)(iii), the Facility has implemented a LFG Remediation Plan, most recently updated on July 12, 2007. In accordance with the Plan, the frequency for monitoring LFG probes exhibiting non-compliant methane concentrations will be monthly until such time that the probes have demonstrated compliant concentrations for three consecutive months or further LFG remediation activities are warranted.

The referenced regulations also require completing an update to the LFG Remediation Plan, within 60 days of the initial exceedance, to consist of a description of proposed remedies to correct the exceedances. As described above, operational adjustments have been made to increase the LFG perimeter migration control system effectiveness in controlling subsurface LFG migration in the area of concern. Therefore, SCS believes that an update to the LFG Remediation Plan is not necessary at this time. If additional remediation efforts are warranted based on subsequent monitoring results, the County will revisit the requirements to update the existing LFG Remediation Plan.

A copy of the NCDENR Environmental Reporting Form is attached. A NC engineer sealed copy will be provided under separate cover. If you have questions or comments regarding the County's notification, please feel free to contact Lee Squires of Wake County at (919) 625-5969 or Bob Dick at (804) 378-7440.

Sincerely,

D. Brandon King

D. Brando Rive

Project Scientist

Scott N. Mortimer

Sr. Project Professional

SCS ENGINEERS, PC

cc:

Lee Squires - Wake County

DBK GEM-2000			
Personnel: Equipment:			
ROBES			
EXHIBIT 2. LANDFILL GAS MONITORING EXCEEDANCE PROBES NORTH WAKE LANDFILL - WAKE COUNTY, NORTH CAROLINA			·
MONITORIN WAKE COUN	Balance Gas (% vol)	07.0	
NDFILL GAS	Oxygen (% vol)	5.	
EXHIBIT 2. LA	Carbon Dioxide (% vol)	4	
	Methane (% vol)	0. 8 -	·
2011	Time (24-hr)	14:20	
September 26, 2011 02199312.07-1 Sunny, 80°F	Monitoring Probe No.	W-70	
Date: Project No: Weather:	Date (mm/dd/yy)	- 1 /o7 / h	Notes: